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Agency

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## **National Priority Chemicals Trends Report (2000-2004)**

### **Section 4 Chemical Specific Trends Analyses for Priority Chemicals (2000–2004): Methoxychlor**

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# Methoxychlor

## Chemical Information:

Methoxychlor is an organochlorine used as a general insecticide. It is a pale– yellow powder with a slightly fruity or musty odor. However, it is available in many forms, including powders, emulsifiable concentrates, granules, and an aerosol. Methoxychlor is similar in structure to dichlorodiphenyltrichloroethane (DDT), but it is less toxic.

**CAS Number** – 72–43–5

**Alternate Names** – 2,2-bis(p-methoxyphenyl)–1,1,1-trichloroethane

**General Uses** – Methoxychlor is used to kill insects such as flies, mosquitoes, cockroaches, chiggers, etc. Methoxychlor also is used on agricultural crops, livestock, grain storage, home gardens, and pets. EPA has approved the use of methoxychlor as a pesticide and fumigant on more than 85 crops such as fruits, vegetables, forage crops, and shade trees. It may also be applied to large areas such as beaches, estuaries, and marshes for control of flies and mosquito larvae and may be used for spray treatment of barns, grain bins, mushroom houses, other agricultural premises, and garbage and sewage areas. (EPA 2000/2001 TRI Public Data Release Report)

**Potential Hazards** – Methoxychlor is highly toxic; it may be fatal if inhaled, swallowed or absorbed through the skin.

## Summary Analysis:

- **REGIONAL:** One facility in Region 7 (Kansas) reported a quantity of methoxychlor in each year from 2000 to 2002. Aside from this facility, one other facility in Region 7 (Missouri) and a facility in Region 8 (Colorado) reported methoxychlor in 2000. In 2004, only one facility in Region 6 (Texas) reported methoxychlor.
- **FACILITIES:** In 2004, one facility reported 766 pounds of methoxychlor. Since 2000, no more than three facilities reported methoxychlor in a given year. In 2003, no methoxychlor was reported.
- **INDUSTRY SECTOR:** Since 2000, only four facilities in three industry sectors have reported methoxychlor. A facility in SIC 2819 (Industrial inorganic chemicals, nec) reported the largest quantity (766 pounds) of methoxychlor in 2004; this facility used its onsite industrial furnace to treat wastes containing methoxychlor that were generated by an offsite facility.

## National Trends:

Exhibit 4.161 shows the number of facilities that reported methoxychlor in 2000 to 2004 and the quantities that were managed via disposal, treatment, energy recovery, and recycling. Since 2000, no more than three facilities reported methoxychlor in a given year. The largest quantity of methoxychlor was reported in 2004 when one facility reported 766 pounds of this chemical. This facility used its onsite industrial furnace to treat wastes containing methoxychlor that were generated by an offsite facility. Only one facility reported methoxychlor in multiple years from 2000 to 2002. This facility used methoxychlor in fly spray for horses but has not used it since 2002. No other facilities reported this chemical in more than one year. In 2003, no methoxychlor was reported. It now appears that methoxychlor will no longer be reported.

Except for one pound that was land disposed in the period 2000–2002, treatment was the primary method used to manage methoxychlor.

**Exhibit 4.161. National Management Methods for Methoxychlor, 2000–2004**

Management Methods for Methoxychlor and Number of Facilities	2000	2001	2002	2003	2004	Percent Change (2000–2004)	Management Method -- Percent of Total Quantity of This PC (2004)
Number of Facilities	3	1	1	0	1	–66.7%	-
Disposal Quantity (pounds)	1	1	1	0	0	–100.0%	NA
Energy Recovery Quantity (pounds)	0	0	0	0	0	NA	NA
Total Treatment Quantity (pounds)	16	0	0	0	766	4810.3%	NA
Total PC Quantity (pounds)	17	1	1	0	766	4353.5%	-
Total Recycled (pounds)*	0	0	0	0	0	NA	-

\*Note: Waste minimization is the emphasis of this Report. As such, we primarily focus on quantities of PCs that are managed via onsite/offsite disposal, treatment, or energy recovery because we believe these PC quantities offer the greatest opportunities for waste minimization. Because recycled quantities of PCs are already directed to their best uses, they are considered separate and distinct from the quantities of PCs not recycled. Throughout this section, the recycled quantity is presented to provide some perspective regarding the quantity of this PC already recycled compared to the quantities that are managed via disposal, treatment, and energy recovery and thus potentially available for waste minimization.

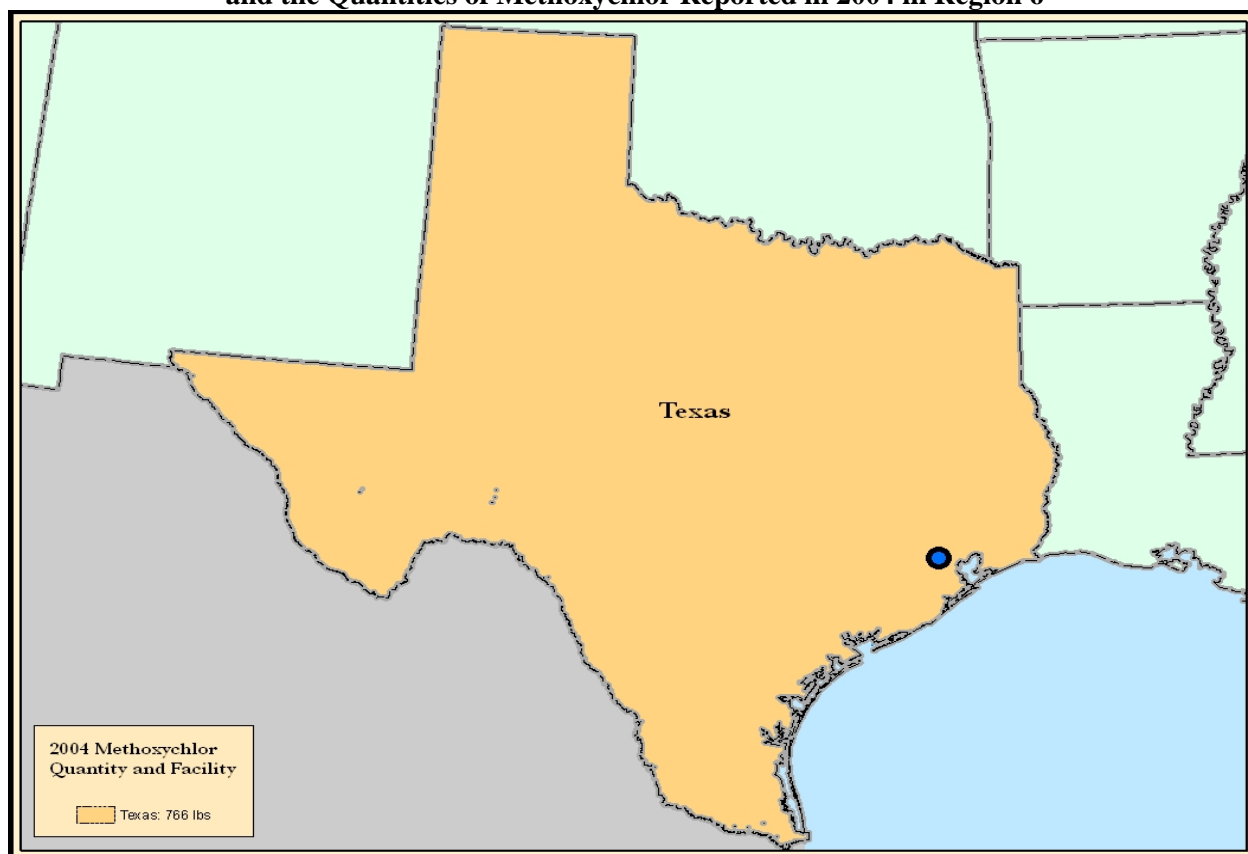
## EPA Regional Trends:

Exhibits 4.162 and 4.163 show the quantity of methoxychlor reported by facilities in three EPA regions in 2000 to 2004. One facility in Region 7 reported a quantity of methoxychlor in each year from 2000–2002. Aside from this facility, one other facility in Region 7 and a facility in Region 8 reported methoxychlor in 2000. In 2004, only facility in Region 6 reported methoxychlor. This facility treated (incinerated) wastes containing methoxychlor generated by an offsite facility. No methoxychlor was reported in 2003.

**Exhibit 4.162. Regional Quantity of Methoxychlor, 2000–2004**

EPA Region	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)	Percent Change in Quantity (2000–2004)	Percent of Total Quantity of This PC (2004)
6	0	0	0	0	766	NA	100.00%
7	12	1	1	0	0	–100.0%	0.00%
8	5	0	0	0	0	–100.0%	0.00%
<b>Total</b>	<b>17</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>766</b>	<b>4353.5%</b>	<b>100.00%</b>

**Exhibit 4.163. Distribution of Facilities Reporting Methoxychlor in 2004  
and the Quantities of Methoxychlor Reported in 2004 in Region 6**



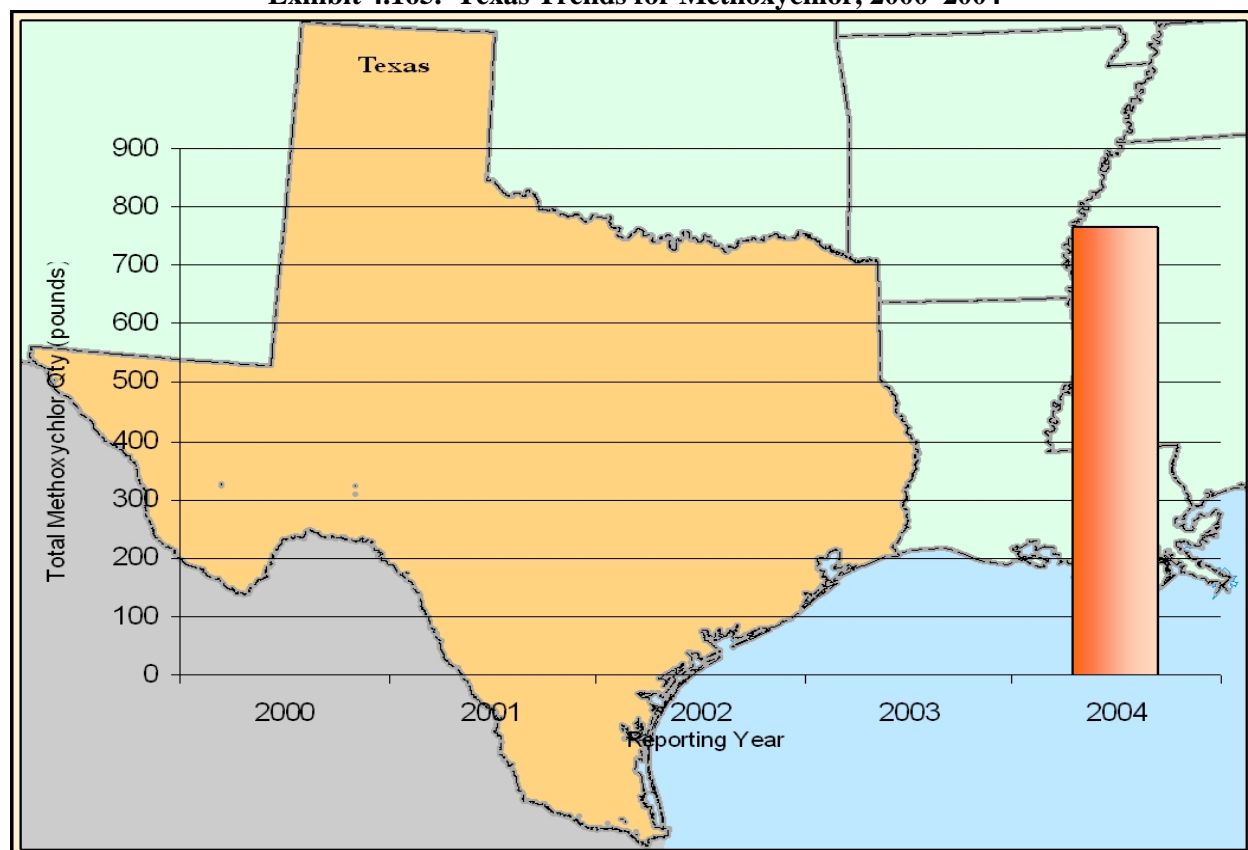
### State Trends:

Since 2000, only four facilities have reported methoxychlor –one facility each in Texas, Kansas, Missouri, and Colorado (Exhibit 4.164). Only the Kansas facility reported methoxychlor in multiple years from 2000 to 2002. No facilities reported methoxychlor in 2003. Exhibit 4.165 shows the trends for the quantity of methoxychlor reported by a facility in Texas – the only facility to report this PC in 2004.

**Exhibit 4.164. State Quantity Trends for Methoxychlor, Based on Largest 2004 Quantity, 2000–2004**

State	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)	Change in Quantity (2000–2004)	Percent Change in Quantity (2000–2004)	Percent of Total Quantity of This PC (2004)
TX	0	0	0	0	766	766	NA	100.0%
KS	3	1	1	0	0	-3	-100.0%	0.0%
MO	9	0	0	0	0	-9	-100.0%	0.0%
CO	5	0	0	0	0	-5	-100.0%	0.0%
<b>Total</b>	<b>17</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>766</b>	<b>749</b>	<b>4353.5%</b>	<b>100.0%</b>

**Exhibit 4.165. Texas Trends for Methoxychlor, 2000–2004**



### Industry Sector (SIC) Trends:

Exhibit 4.166 shows the quantity of methoxychlor reported by four facilities in 2000–2004, by industry sector. Two of the four facilities were in SIC 2879 (Pesticides and agricultural chemicals, nec). One facility was in each of the other two industry sectors. A facility in SIC 2819 (Industrial inorganic chemicals, nec) reported 766 pounds of methoxychlor in 2004; this facility used its onsite industrial furnace to treat wastes containing methoxychlor that were generated by an offsite facility. This might have been a one time occurrence. Only one facility, in SIC 2879 (Pesticides and agricultural chemicals, nec), reported methoxychlor in multiple years (2000 to 2002). This facility used methoxychlor in fly spray for horses but has not used it since 2002.

**Exhibit 4.166. Industry Sectors Containing Methoxychlor, 2000–2004**

Primary SIC	SIC Code Description	2000 (pounds)	2001 (pounds)	2002 (pounds)	2003 (pounds)	2004 (pounds)
2819	Industrial inorganic chemicals, nec	0	0	0	0	766
2879	Pesticides and agricultural chemicals, nec	8	1	1	0	0
2899	Chemical preparations, nec	9	0	0	0	0